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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,834	12/04/2003	Ulrich Bonne	H0004834(1100.1205101)	7422

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EXAMINER

DOUGLAS, KATHERINE L

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,834

Applicant(s)

BONNE ET AL.

Examiner

Katherine L. Douglas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 38-50 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 13-37 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/3/04 and 6/1/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

- I. **Claims 1-12 and 38-50**, drawn to a sensing apparatus, classified in class 422, subclass 55.
- II. **Claims 13-16**, drawn to a fluid sensor apparatus, classified in class 422, subclass 68.1.
- III. **Claims 17-25**, drawn to 422, classified in class 422, subclass 58.
- IV. **Claims 26-30**, drawn to 422, classified in class 422, subclass 67.
- V. **Claims 31-37**, drawn to a method for operating a fluid sensor, classified in class 436, subclass 164.

1. The inventions are distinct, each from the other because of the following reasons:

Inventions I - IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions and modes of operation. In this case, invention I is a fluid enclosure with a light source and light sensor. Invention II is a fluid sensor with two light sources. Invention III is a tube containing a membrane with a light source near it. Invention IV is a sensing means with fluid flow control.

Inventions I and V are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as

claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as carrying out reactions that require irradiation.

Inventions II-IV and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The method of invention V requires that it be performed on an apparatus that has a different structure than those claimed in inventions II - IV.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with John Shudy on 11/16/2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-12 and 38-50. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Double Patenting

3. Applicant is advised that should **claims 1-11** be found allowable, **claims 38-48** will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-9 and 38-46** are rejected under 35 U.S.C. 102(b) as being anticipated by Brandon (GB 2208707A).

Brandon discloses an invention for the “detection of gaseous compounds” [page 1, paragraph 1]. This invention comprises “a gas absorbing cell having a chamber for liquid reagent separated from a region containing sample gas by a gas permeable membrane, the chamber having an inlet port for connection to a supply of liquid reagent and an outlet port connected to the sensing apparatus for detecting a change in the liquid reagent due to the presence of the gas to be detected. . . . The analyser according to the invention enables a sample of a gaseous compound from, for example, ambient air to be collected by diffusion through the gas permeable membrane into the

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liquid reagent in the chamber, which may be stationary or moving. . . . In a preferred embodiment the sensing apparatus is an optical sensor, preferably a photometer. The output from the photometer may be processed electronically to provide an indicated value of the ambient gas concentration. The electronic circuitry may be constructed so as to provide an alarm signal" [pages 1-3]. A second embodiment of the invention allows for "an optical cell comprising a body with a transverse bore closed at its ends by windows, an inlet connected to the bore adjacent one of its ends and an outlet connected to the bore adjacent the other of its ends, the inlet being connected to a source of fluid whereby fluid passes from the inlet to the outlet through the bore, a light source mounted outside one window and a photo detector being mounted outside the other window so that the photo detector detects light from the light source passing through the liquid in the bore" [page 3]. A third embodiment describes a container of liquid with a "pulsed valve" [page 3] that is connected to the output of the enclosure.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
9. **Claims 10-12 and 47-50** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brandon in view of Chandler (USPN 6,592,822).

Brandon does not specifically teach using multiple laser light sources that have different wavelengths or the use of a flow sensor. However, Chandler discloses "the instant invention provides a multi-analyte diagnostic system for use with a computer. The diagnostic system, for example, includes a flow analyzer including, a substantially co-planar optical assembly having at least one light source and at least one optical detector" [column 7, lines 15-19]. He goes on to further describe the light sources, saying "the plurality of light sources, optionally, include two light sources. Each light source, optionally, emits respective two distinct wavelengths of light" [column 7, lines 49-51]. Therefore, considering the teachings of Brandon in view of the teachings of Chandler, it would have been obvious to one of ordinary skill in the art at the time of the

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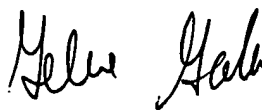
invention to include the multiple light sources, using lasers of different wavelengths, as well as including a flow sensor for the purposes of expanding the range of possible analytes and, as indicated by Chandler, "it is desirable to minimize the testing time to increase the number of tests that can be performed over a predetermined time interval" [column 2, lines 64-67].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine Douglas whose telephone number is 571-272-1207. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kld


YELENA GAKH
PRIMARY EXAMINER